

Notice of Allowability

Application No.

09/273,948

Examiner

Anh-Vu H. Ly

Applicant(s)

GOLESTANI, S. JAMALODDIN

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a petition decision by Office of Petitions.
2. ☒ The allowed claim(s) is/are 1, 3-12, 15-20, and 23 renumbered as 1-18 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mike Bentley (Registration #52613) on April 12, 2006.

The application has been amended as follows:

In The Claims

Claim 15, in line 7, delete "adapted"; in line 10, delete "such"; in line 15, replace "generates a consolidated" with --generates a new consolidated--; and in line 18, replace "forwards the consolidated" with --forwards the new consolidated--.

Claim 16, in line 7, delete "adapted"; in line 10, delete "such"; in line 12, replace "congestion" with --transmission--; and in line 13, replace "congestion" with --transmission--.

Claim 20, in line 7, delete "adapted" and in line 10, delete "such".

Claim 23, in line 7, delete "adapted"; in line 10, delete "such"; in line 13, replace "the reporting network" with --a hierarchical reporting network--; in line 14, replace "to a receiver" with --to a first receiver--; in line 16, replace "by the receiver" with --by the first receiver--; and in line 17, replace "latter receiver" with --first receiver--.

Allowable Subject Matter

2. Claims 1, 3-12, 15-20, and 23 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest that wherein the receivers forming the multicast group also form a multilevel hierarchical reporting network that forwards a congestion control value to the source, wherein a receiver positioned at each level in said multilevel hierarchical reporting network includes apparatus that computes a new consolidated congestion control value, said new consolidated congestion control value being a function of the congestion control value that said receiver locally generates and a consolidated congestion control value that said receiver receives from receivers positioned at a preceding level in said multilevel hierarchical reporting network, and said receiver then forwarding said new consolidated congestion control value to the source via the next succeeding level in the multilevel hierarchical reporting network, as specified in independent claims 1 and 15.

The prior art does not teach or fairly suggest that wherein the data receiver uses a window based scheme to determine a maximum expected sequence number as its respective transmission control value, and wherein the source uses the minimum of the transmission control values that it receives as maximum sequence number of a next packet that the source transmits to each said receiver, as specified in independent claim 16.

The prior art does not teach or fairly suggest generating a respective congestion control value by a data receiver as a (a) function of the sequence number of a last data packet received successfully in sequence with prior received data packets and minimum of (b) a transmission window plus the number of data messages received out of sequence, and (b2) the number of

Art Unit: 2616

memory locations in the re-assembly buffer available for the storage of out-of-sequence data packets, as specified in independent claim 20.

The prior art does not teach or fairly suggest that wherein each receiver further includes third apparatus that determines a trip delay to the source via a hierarchical reporting network as a function of a (a) time stamp that it associates with a message containing a congestion control value that the receiver forwards to a first receiver positioned at the next highest level in the reporting network, and (b) trip delay returned by the first receiver positioned at the next highest level, in which the returned trip delay is indicative of the trip delay from the first receiver to the source, as specified in independent claim 23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl


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SUPERVISORY PATENT EXAMINER
TECHNICAL DEPT CENTER 2200 4/17/06